



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/627,201	07/23/2003	Shi-Feng Shao	USP2181C-DRSH	2701
30265	7590	07/26/2006	EXAMINER	
RAYMOND Y. CHAN 108 N. YNEZ AVE., SUITE 128 MONTEREY PARK, CA 91754			WRIGHT, INGRID D	
			ART UNIT	PAPER NUMBER
			2835	

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/627,201

Applicant(s)

SHAO, SHI-FENG

Examiner

Ingrid Wright

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 21 June 2006.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-17 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 14-17 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 6/21/06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☒ Other: 2 Attachments.

DETAILED ACTION

1. Objections to the Abstract and Drawings are withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. US 6382307 B1 in view of Lee US 6619381 B1. Note: See attached fig. 1 of Lee and fig. 2 of Wang et al. for elements representing claimed limitations in the instant application.

With respect to claim 14, Wang et al. teaches a heat dissipating arrangement (see, Abstract of Wang et al.) for a portable computer, comprising at least two heat dissipating members (2) adapted for installing into said portable computer for dissipating heat therefrom, wherein each of said heat dissipating members (2) comprises: a plate body (see, notation on attached fig. 2 of Wang et al.) defining a heat dissipating surface and a peripheral edge (see, notation on attached fig. 2 of Wang et al.); at least a heat guiding channel (1) having a circular shape integrally protruded from said heat dissipating surface of said plate body (see, notation on attached fig. 2 of Wang et al.); at least a folding arm (see, notation on attached fig. 2 of Wang et al.) integrally and bendably extended from said peripheral edge of said plate body (see, notation on attached fig. 2 of Wang et al.), wherein said folding arm (see, notation on attached fig. 2 of Wang et al.) is bent to transversely extended from said heat dissipating surface and to overlap with said folding arm of another said adjacent plate body (see, notation on attached fig. 2 of Wang et al.) so as to enhance a contacting area between said heat dissipating members, and at least an engaging arm

Art Unit: 2835

(see, notation on attached fig. 2 of Wang et al.) integrally and bendably extended from said peripheral edge of said plate body (see, notation on attached fig. 2 of Wang et al.) at a position adjacent to said folding arm (see, notation on attached fig. 2 of Wang et al.), but is silent as to the engaging arm having a Y-shape.

Lee teaches engaging arms (see, notation on attached fig. 1 of Lee), having a Y-shape, integrally extended from said peripheral edge of a plate body (see, notation on attached fig. 1 of Lee) in a bendable manner, wherein said engaging arm has a narrowed root portion (see, notation on attached fig. 1 of Lee) bendably and outwardly extended from said peripheral edge of said plate body (see, notation on attached fig. 1 of Lee) and an engaging head portion (see, notation on attached fig. 1 of Lee) extending from said root portion, wherein said engaging head portion of each of said engaging arms forms two engaging wings (see, notation on attached fig. 1 of Lee) adapted to engage with said root portion of another said engaging arm (see, notation on attached fig. 1 of Lee), wherein said root portion (see, notation on attached fig. 1 of Lee) of said engaging arm of each of said heat dissipating members (see, notation on attached fig. 1 of Lee) is bent to transversely extended from said heat dissipating surface that said engaging head portion (see, notation on attached fig. 1 of Lee) of said engaging arm of said heat dissipating member is substantially engaged with said root portion of said engaging arm of another said heat dissipating member to spacedly lock up said heat dissipating member (see, notation on attached fig. 1 of Lee) at a position that said heat guiding channels (1) are coaxially aligned with each other to form an elongated heat conducting conduit, wherein said heat dissipating members (see, notation on attached fig. 1 of Lee) are communicatively mounted side by side while said heat dissipating surfaces of said heat dissipating members are spaced apart between said heat guiding channel for dissipating said heat from said portable computer, thereby, the user is able to selectively assemble a predetermined number of heat dissipating members (see, notation on attached fig. 1 of Lee) by

Art Unit: 2835

bending said folding arm to overlap with said adjacent folding arm (see, notation on attached fig. 1 of Lee) and bending said root portion (see, notation on attached fig. 1 of Lee) of said engaging arm (see, notation on attached fig. 1 of Lee) to engage said head portion (see, notation on attached fig. 1 of Lee) of said engaging arm with said root portion of said adjacent engaging arm.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the engaging arms of Lee, in the invention of Wang et al., in order to provide an alternate equivalent and enhanced means of securing heat dissipating members together to remove heat from a computer enclosure.

With respect to claim 15, Lee teaches wherein said two engaging wings (see, notation on attached fig. 1 of Lee) symmetrically identical, wherein said root portion (see, notation on attached fig. 1 of Lee) of each of said engaging arms is bent 90 degrees with respect to said plate body (see, notation on attached fig. 1 of Lee) to engage said engaging wings of said engaging arm with said root portion of another corresponding said engaging arm at said peripheral edge (see, notation on attached fig. 1 of Lee) of said plate body.

With respect to claim 16, Lee teaches where each of said folding arms (see, notation on attached fig. 1 of Lee) is downwardly bent 90 degrees to transversely extend from said heat dissipating surface (see, notation on attached fig. 1 of Lee) of said plate body (see, notation on attached fig. 1 of Lee) to overlap with said folding arm of another said heat dissipating member.

With respect to claim 17, Lee teaches wherein each of said folding arms (see, notation on attached fig. 1 of Lee) is downwardly bent 90 degrees to transversely extend from said heat

Art Unit: 2835

dissipating surface of said plate body to overlap with said folding arm of another said heat dissipating member (see, notation on attached fig. 1 of Lee).

Response to Arguments

3. Applicant's arguments, filed regarding claims 14-17, have been fully considered but are not persuasive.

With respect to Applicant's argument, regarding Wang et al. not verbally suggesting any clip at the fin, the Examiner notes that this limitation is not claimed in the instant application.

With respect to Applicant's argument, regarding Wang et al. never mentioning any engaging arm having a narrowed root portion and an engaging head portion, the Examiner notes that Lee is relied on to teach an engaging arm (see, notation on attached fig. 1 of Lee) comprising a narrowed root portion and an engaging head (see, notations on attached fig. 1 of Lee) and not Wang et al.

With respect to Applicant's argument, regarding Wang et al. not teaching each of the engaging arms having a Y-shape, integrally extended from the peripheral edge of the plate body in a bendable manner, the Examiner notes that Lee is relied upon to teach Y shaped engaging arms (see, notation on attached fig. 1 of Lee), integrally extended from the peripheral edge of a plate body (see, notation on attached fig. 1 of Lee) in a bent manner and not Wang et al.

With respect to Applicant's argument, regarding Wang et al. not teaching the engaging head portion of each of the engaging arms forming two engaging wings adapted to engage with the root portion of another engaging arm, the Examiner notes that Lee is relied upon to teach

Art Unit: 2835

engaging arms (see, notation on attached fig. 1 of Lee), with engaging head portions (see, notation on attached fig. 1 of Lee) forming two wings for engaging root portions of adjacent or another engaging arms (see, notation on attached fig. 1 of Lee) and not Wang et al.

With respect to Applicant's argument, regarding Wang et al. never mentioning two engaging wings symmetrically identical, wherein each of the engaging arms is bent 90 degrees with respect to the plate body to engage the engaging wings of the engaging arm of a root portion of another corresponding engaging arm, the Examiner notes that Lee is relied upon to teaches an engaging arm (see, notation on attached fig. 1 of Lee) bent at 90 degrees in relation to a plate body (see, notation on attached fig. 1 of Lee) to engage engaging wings (see, notation on attached fig. 1 of Lee) of corresponding engaging arm (see, notation on attached fig. 1 of Lee) and not Wang et al.

With respect to Applicant's argument, regarding Wang et al. not teaching any folding arm integrally and bendably extended, the Examiner notes that Lee is relied upon to teach a folding arm (see, notation on attached fig. 1 of Lee) integrally and bendably extended. The folding arm (see, notation on attached fig. 1 of Lee) was bent and is integrally formed in the position as shown and not Wang et al.

With respect to Applicant's argument, regarding Wang et al. not disclosing folding arms downwardly bent 90 degrees, the Examiner notes that Lee is relied upon to teach folding arms (see, notation on attached fig. 1 of Lee) bend downwardly 90 degrees and not Wang et al.

With respect to Applicant's argument, regarding Wang et al. not teaching each engaging arm having a predetermined length, the Examiner respectfully disagrees and notes the engaging arm

Art Unit: 2835

of Wang et al. has a predetermined length and the engaging arm of Lee has a predetermined length.

With respect to Applicant's argument, regarding Lee not mentioning any concept of engaging arm being bendably extended from the edge of the plate body for locking the heat dissipating member, the Examiner respectfully disagrees and notes that Lee teaches an engaging arm (see, notation on attached fig. 1 of Lee) that is bent 90 degrees to lock to adjacent heat dissipating members (see, notation on attached fig. 1 of Lee). Although, Lee does not use this specific language, these limitations are clearly taught.

With respect to Applicant's argument, regarding Lee not teaching wings bent inward to engage with an adjacent fin, the Examiner notes that these limitations are not claimed in the instant application.

With respect to Applicant's argument, regarding Lee not teaching an engaging arm bendably extended from the heat dissipating member, the Examiner respectfully disagrees and notes that the Lee teaches an engaging arm (see, notation on attached fig. 1 of Lee) that was bent and extended from a heat dissipating member (see, notation on attached fig. 1 of Lee).

With respect to Applicant's argument, regarding the heat dissipating member being first slid towards the adjacent heat dissipating member and the engaging arm being bent to lock at the peripheral edge of the adjacent heat dissipating member, the Examiner notes that this 2 step lock up operation or method is not claimed. Additionally, the Examiner notes that Lee teaches an engaging arm (see, notation on attached fig. 1 of Lee) bent to lock at a peripheral edge of an adjacent heat dissipating member (see, notation on attached fig. 1 of Lee).

Art Unit: 2835

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Wang et al. teaches a heat dissipating member with an engaging arm (see, notation on attached fig. 2 of Wang et al.) but is silent as to a Y-shape engaging arm. Lee teaches a heat dissipating member (see, notation on attached fig. 1 of Lee) comprising a Y-shaped engaging arm (see, notation on attached fig. 1 of Lee). It is within the one of ordinary skill in the art to substitute the engaging arms of Lee for the engaging arms of Wang et al., as an alternate and enhanced means of securing adjacent heat dissipating members.

Conclusion


4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: shows the general state of the art regarding heat dissipating members in a locked configuration.
5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ingrid Wright whose telephone number is (571)272-8392. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (571)272-2800, ext 35. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2835

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

IDW



LYNN FEILD
SUPERVISORY PATENT EXAMINER

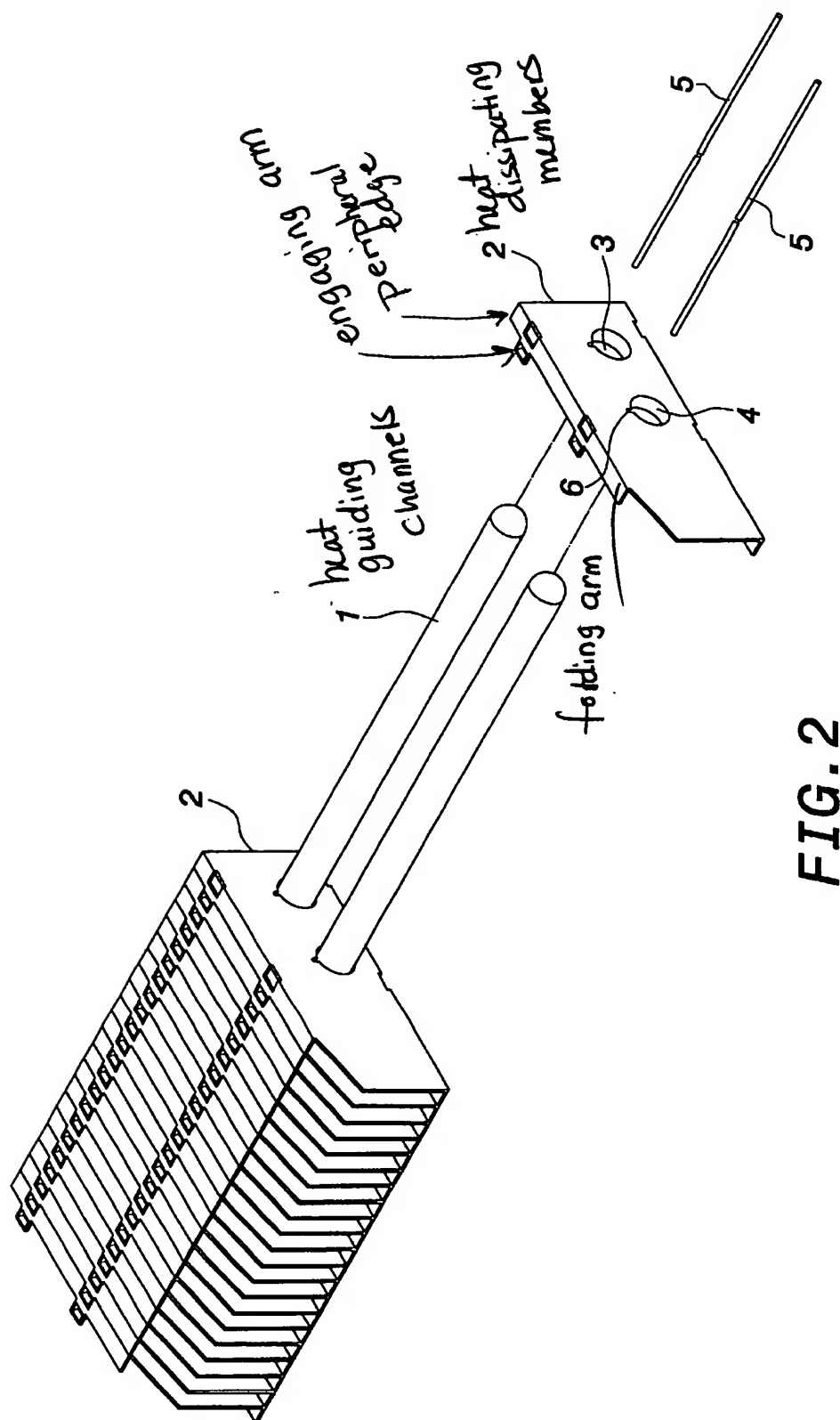


FIG. 2

